GUREVICH, M.I.

Certain problems concerning the calculation of evaporator systems. Trudy Ural politekh. inst. no.76:110-119 '60.
(MIRA 16:6)
(Evaporating appliances)

MAGRACHEV, S.L., dots.; USPENSKIY, Ye.N., dots.; GUREVICH, M.I., dots., kand. tekhn.nauk, otv. red.; [redacted] tekhn. red.

[Design of compressor machines] Raschet kompressornykh mashin. Sverdlovsk, Izd. UPI. Pt.1. [Gas dynamic calculation of a centrifugal blower] Gazodinamicheskii raschet tsentrobezhnoi vozdukhoduvki; uchebnoe posobie. 1962. 68 p. (MIRA 16:8)

(Turboblowers)

ACC NR: AP6035704 (A, N) SOURCE CODE: UR/0413/66/000/019/0052/0053

INVENTOR: Gurevich, M. L.

ORG: none

TITLE: A stroboscopic device for measuring the instantaneous values of recurrent nanosecond signals. Class 21, No. 186559

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 52-53

TOPIC TAGS: stroboscope, electric measuring instrument, signal analysis, nanosecond pulse

ABSTRACT: This Author Certificate presents a stroboscopic device for measuring the instantaneous values of recurrent nanosecond signals. The device includes a gate pulse generator, a mixer, a measuring circuit, and a final recording instrument (see Fig. 1). The design increases the measurement precision. The measuring circuit is made in the form of two autocompensation circuits each of which is assembled from an amplifier, a single flip-flop oscillator, and an emitter follower, all of which are connected in series. A signal (combined with a gate pulse) is fed to the input of one of the autocompensation circuits. The outputs of the autocompensation circuits are connected through a differential stage to the input of the final recording

Card 1/2 UDC: 621.317.326

ACC NR: AP6035704

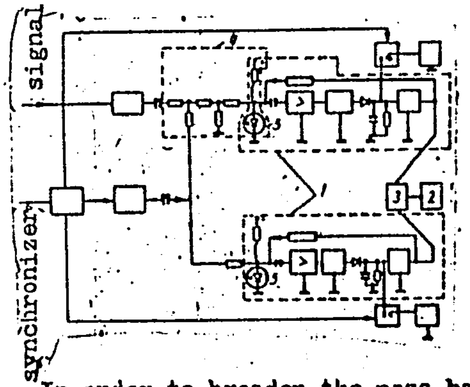


Fig. 1. 1 - autocompensation circuit; 2 - recording instrument; 3 - differential stage; 4 - mixer; 5 - tunnel diode

instrument. In order to broaden the pass band, the mixer is made with a tunnel diode. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 14Oct64

Card 2/2

LITVINOV, L.Ya., inzh.; GUREVICH, M.L., inzh.

Reconstruction of a blast furnace at the Yenakiyevo Plant by the shifting method. Prom. Stroi. 42 no.9:7-12 S '64. (MIRA 17:10)

1. Donetskiy otdel tresta Ukrmontazhorgstroy.

[illegible], [illegible]; [illegible], [illegible]; [illegible], [illegible]

Conducting mechanical logging using [illegible] apparatus in the boring of holes in coal deposits. Izv. vys. ucheb. zav.; geol. i razv. 7 no.6:123-126 Je '64. (MIRA 18:7)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze i TSentral'noye konstruktorskoye byuro Gosudarstvennogo geologicheskogo komiteta.

GAVENSKIY, Ya.M. uchitel' (Baku); GUREVICH, M.M., uchitel' (Baku)

Use of local material in the first lesson of hunan anatomy and physilolgy. Biol. v shkole no.5:82-83 S-O '58. (MIRA 11:11)
(ANATOMY, HUMAN--STUDY AND TEACHING)
(PHYSILOLGY-- STUDY AND TEACHING)

GUREVICH, M.M.; ZEYNALOV, B.K.; YEGIYEVA, R.Sh.

Petroleum oxyacids as reagents for chemical treatment of drilling muds. Dokl. AN Azerb. SSR 14 no.5:357-364 '58. (MIRA 11:5)

1. Institut khimii AN AzerSSR. Predstavleno akademikom AN AzerSSR M.F. Nagiyevym.

(Oil well drilling fluids)

SHLYKOV, Grigoriy Nikolayevich; KAVUN, P.K., red.; GUREVICH, M.M.,
tekhn. red.; BALLOD, A.I., tekhn. red.

[Introduction and acclimatization of plants; introduction to
the cultivation and reclamation in new regions] Introduktsiia
i akklimatizatsiia rastenii; vvedenie v kul'turu i osvoenie
v novykh raionakh. Moskva, Sel'khozizdat, 1963. 487 p.
(MIRA 16:9)

(Plant introduction)

KUNDZICH, Mikhail Mikhaylovich; ORLOVA, V.P., red.; AZARKH, N.Ya., spets. red.; GUREVICH, M.M., tekhn. red.; TRUKHINA, O.N., tekhn. red.

[Equipment for rural water supply] Oborudovanie dlia sel'skokhoziaistvennogo vodosnabzheniia. Moskva, Sel'khozizdat, 1963. 127 p. (MIRA 16:9)

(Water supply engineering)

VOL'KENSHTEYN, A.A.; GORODINSKIY, G.M.; GUREVICH, M.M.; GUREVICH, N.N.;
GUSEV, N.M.; KOZLYANINOV, M.V.; LAZAREV, D.N.; LEVITIN, I.B.;
MESHKOV, V.V.; POPOV, O.I.; SAMSONOVA, V.G.

Andrei Aleksandrovich Gershun. Svetotekhnika 8 no.12:1-3 D '62.
(MIRA 16:1)

(Gershun, Andrei Aleksandrovich)

GUREVICH, M. M., doktor tekhn. nauk, prof.

A thick-walled capillary. Svetotekhnika 9 no.3:29-30 Mr '63.
(MIRA 16:4)

1. Gosudarstvennyy opticheskiy institut.

(Capillaries)

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

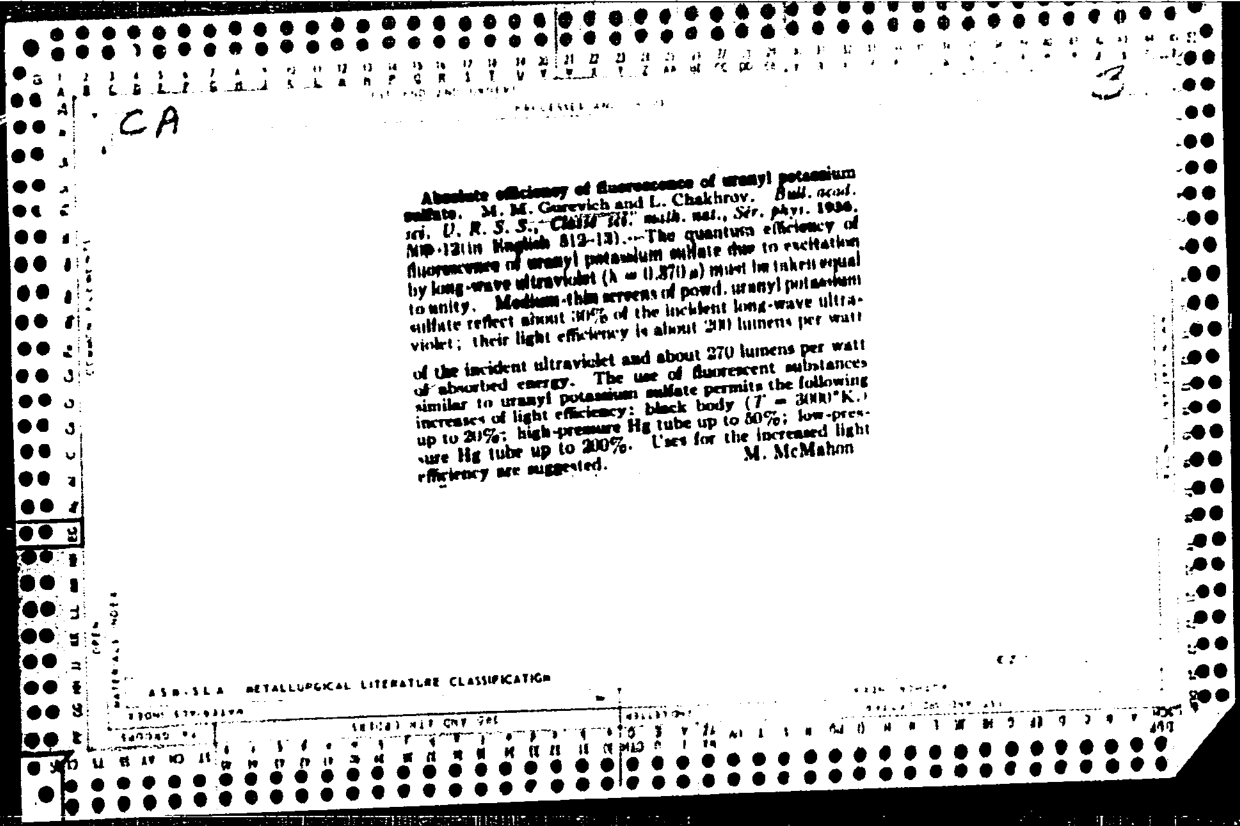
BC GUREVICH, M.M.

a-1

Absolute efficiency of fluorescence of potassium uranyl sulphate. M. M. GUREVITSCH and L. TSCHALENKOV (Bull. Acad. Sci. U.R.S.S., 1936, 509—518).—The light efficiency of $K_2UO_2(SO_4)_2$ screens amounts to about 290 lumens per watt of incident ultra-violet light energy. The use of such screens increases the illuminating efficiency of a black body at 3000° by 20%, and of high- and low-pressure Hg-vapour lamps by 80 and 200%, respectively. R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

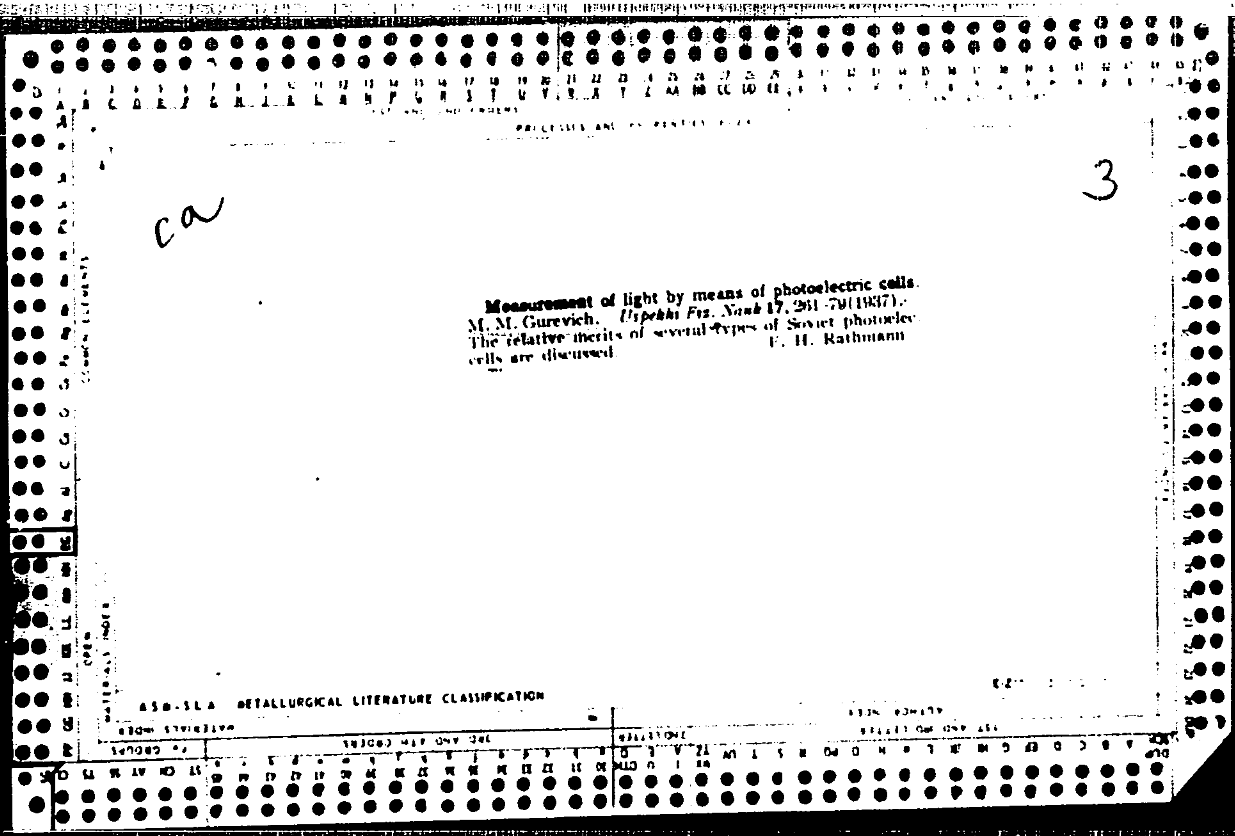


CA

3

Absolute efficiency of fluorescence of uranyl potassium sulfate. M. M. Gurevich and L. Chakhrov. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. phys.* 1936, 509-12(in English 512-13).—The quantum efficiency of fluorescence of uranyl potassium sulfate due to excitation by long-wave ultraviolet (λ = 0.370 μ) must be taken equal to unity. Medium-thin screens of powd. uranyl potassium sulfate reflect about 30% of the incident long-wave ultraviolet; their light efficiency is about 200 lumens per watt of the incident ultraviolet and about 270 lumens per watt of absorbed energy. The use of fluorescent substances similar to uranyl potassium sulfate permits the following increases of light efficiency: black body (T = 3000°K.) up to 20%; high-pressure Hg tube up to 80%; low-pressure Hg tube up to 200%. Uses for the increased light efficiency are suggested. M. McMahon

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



ca

3

Measurement of light by means of photoelectric cells. M. M. Gurevich. *Uspekhi Fiz. Nauk* 17, 261-79(1937).—The relative merits of several types of Soviet photoelec cells are discussed. F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

2

General foundations of colorimetry. M. M. Gurevich. *Uspekhi Fiz. Nauk* **22**, 139-67(1939).—Systematic presentation of the fundamental laws of colorimetry. The mechanism of light-reception by the human eye is discussed. Systems of two and three or more photoelec. cells with different sensitivity ranges are described and their use under various conditions is considered. F. H. Rathmann

COMMON ELEMENTS

COMMON VARIABLES INDEX

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

AUTHOR INDEX

1ST AND 2ND LETTER

3RD LETTER

3RD AND 4TH ORDERS

1ST GROUPS

GUREVICH, M. M.

USSR

"On Talon Arrangement for the Determination of the Atmosphere Transparency,"

Iz. Ak. Nauk SSSR Ser, Geograf., Nos. 1-6, 1942.
i Geofiz.

GUREVICH, M. M.

Lighting and the eye.

An article found in "Optics for Military Use", Part 4, published by the USSR Academy of Science, Moscow, 1945.

GUREVICH, M. M., Photometric Lab., State Optical Inst.,

"Geometrical Solution of Color Mixture Problems."

Dok AN, 45, No 4, 1944.
Zhur. Tech. Fiz., 15, No 3, 1945.

GUREVICH, M. M.

Spectrum Sensitivity of the Three Receptors of the Eye."

Dok. AN, 48, No 9, 1945.

ANDRONNIKOV, K.S.; BALAKOV, V.V.; BUZHINSKIY, A.N.; BURAGO, A.N.; VEITMAN, L.A.; VISHNEVSKIY, A.A.; VOLOSOV, D.S.; GASSOVSKIY, L.N., professor; GERSHUN, A.A., professor; YEL'YASHEVICH, M.A.; YEVSTROP'YEV, K.S.; GUREVICH, M.M., professor; KOLYADIN, A.I.; KORYAKIN, B.M.; KURITSKIY, A.L.; PAPIYANTS, K.A.; PROKOF'YEV, V.K., professor; PUTSEYKO, Ye.K.; REZUNOV, M.A.; RITYN', N.E., SAVOST'YANOVA, M.V., professor; SEVCHENKO, A.N.; SENNOV, N.I.; STOZHAROV, A.I.; FAYERMAN, G.P., professor; FEOFILOV, P.P.; TSAREVSKIY, Ye.N., professor; CHEKHMATAYEV, D.P.; YUDIN, Ye.F.; KAVRAYSKIY, V.V., professor; VAVILOV, S.I., akademik, redaktor

[Optics in military science] Optika v voennom dele; sbornik statei. Pod red. S.I.Vavilova i M.V.Savost'ianovoi. Izd. 3-e, zanovo perer. i dop. Moskva. Vol.2. 1948. 387 p. (MLRA 9:9)

1. Akademiya nauk SSSR. 2. Sostaviteli - sotrudniki Gosudarstvennogo Opticheskogo instituta (for all except Vavilov and Kavrayskiy) 3. Voyenno-morskaya akademiya (for Kavrayskiy)
(Optics)

GUREVICH, M. M.

"Color Discrimination Capacities of the Eye," Tsvet i Ego Izmerenie (Color & Its Measurement), pp 217-229, 1950. (T-2335).

Textbook B-83873, 28 Mar 55

1. GUREVICH, M. M.

2, USSR (600)

4. Physics and Mathematics

7. Color and its Measurement, M. M. Gurevich. (Moscow-Leningrad, Acad Sci USSR Press, 1950). Reviewed by N. T. Fedorov, Sov, Kniga, No. 10, 1951.

9. [redacted] Report U-3081, 16 Jan. 1953, Unclassified.

GUREVICH, M.M.

Newton's color theory. Usp.fiz.nauk 52 no.2:291-310 '54.
(MLRA 7:3)
(Optics) (Newton, Sir Isaac, 1642-1727)

GUREVICH, M. M.

USSR/Chemical Technology. Chemical Products and Their Application -- Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5168

Author: Gurevich, M. M.

Institution: Academy of Sciences USSR

Title: Spectral Dependence of Light Scattering in Sodium-Borosilicate Glasses

Original Publication: Sb. Stroyeniye stekla, M.-L., AN SSSR, 1955, 202-206

Abstract: Description of experiments concerned with the study of spectral characteristics of glass containing (in %): Na_2O_7, B_2O_3 23 and SiO_2 70.

Card 1/1

GUREVICH, M.M., doktor tekhnicheskikh nauk, professor; MEYER, L.N., kandidat tekhnicheskikh nauk.

Photoelectric color comparator. Svetotekhnika 1 no.6:18-23 D '55.
(MIRA 9:4)

1.Gosudarstvennyy opticheskiy institut.
(Colorimetry) (Photoelectric measurements)

GUREVICH,M.M.

Spectral distribution of radiation output. Usp. fiz. nauk 56
no.3:417-424 Jl'55. (MLRA 8:10)

(Spectrum analysis)

GUREVICH, M.M., professor; KARYAKIN, N.A., professor; MESHKOV, V.V., professor; SOKOLOV, M.V., professor; TIKHODEYEV, P.M., professor; FABRIKANT, V.A., professor; IVANOVA, N.S., kandidat tekhnicheskikh nauk; SHNEYBERG, Ya.A.; YUROV, S.G.; ASHKENAZI, G.I., inzhener.

Professor L.D. Bel'kind; on his sixtieth birthday. Svetotekhnika 2 no.5:26 S '56. (MLRA 9:11)

(Bel'kind, Lev Davidovich, 1896-)

GUREVICH, M. M.

51-2-13/15

AUTHOR: Gurevich, M.M.

TITLE: An unfortunate standard (a discussion). (Neudachnyy standart).

PERIODICAL: "Optika i Spektroskopiya" (Optics and Spectroscopy) 1957, Vol.3, No.2, pp.187-188 (U.S.S.R.)

ABSTRACT: A new State Standard GOST (ГОСТ) 7721-55 "Sources of illumination to be used in measurement of colour of non-selfluminous objects" came into force on 1st February, 1956. The author strongly criticizes this standard, especially its departure from the accepted international practice in the West (International Commission on Illumination, recommendations of 1931). Defence of this standard by G.M.Rautian et al. (Ref.1), on the grounds that the international practice is based on a material standard, is regarded as inadequate and the author joins forces with Prof.A.I.Tudorovskiy (Ref.2) by supplying practical reasons for return to the international standard. There are 2 references (both Slavic). References cited: /1/ G.N.Rautian, N.V.Lobanova and M.A.Znamenskaya, Zh.Tekh. Fiz., 26, 193 (1956). /2/ A.I.Tudorovskiy, Zh.Tekh.Fiz., 26, 237 (1956).

Card 1/1

SUBMITTED: November 27, 1956.

AVAILABLE: Library of Congress

VUL'FSON, K.S., prof.; GUREVICH, M.M., prof.; MESHKOV, V.V., prof.; NILENDER, R.A., prof. ~~YUROV, S.G.~~, kand. tekhn. nauk; SOKOLOV, M.V., prof.; BIBERMAN, L.M., kand. tekhn. nauk; BUTAYEVA, F.A., kand. tekhn. nauk; IVANOVA, N.S., kand. tekhn. nauk; SUSHKIN, N.G., kand. tekhn. nauk.

Valentin Aleksandrovich Fabrikant; on his 50th birthday. Svetotekhnika 3 no.12:24-25 D '57. (MIRA 11:1)
(Fabrikant, Valentin Aleksandrovich, 1907-)

GERSHUN, Andrey Aleksandrovich; VOLKENSHTEYN, A.A.; GUREVICH, M.M.;
LAZAREV, D.N.; FEDOROVA, Ye.O.; ORLOVA, L.I., red.;
POL'SKAYA, P.G., tekhn. red.

[Selected papers on photometry and illuminating engineering]
Izbrannye trudy po fotometrii i svetotekhnike. Moskva, Gos.
izd-vo fiziko-matematicheskoi lit-ry, 1958. 548 p. (MIRA 11:9)
(Photometry (Lighting)

BOLDYREV, N.G., GUREVICH, M.M., TIKHODEYEV, P.M., FEDOROV, N.T.

On N.D. Niuberg's article "Colorimetric experiments as a means of studying color sense and the requirements they should meet."
Biofizika 3 no.3:381-383 '58 (MIRA 11:6)
(COLORIMETRY)
(COLOR SENSE)

GUREVICH, M.M.

15(7)

AUTHOR: Yustova, Ye.N. SOV/72-58-12-23/23

TITLE: Conference on Problems of Measuring the Whiteness of Products (Soveshchaniye po voprosam izmereniya belizny izdeliy)

PERIODICAL: Steklo i keramika, 1958, Nr 12, pp 48-48 (USSR)

ABSTRACT: In the current year, the Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni Mendeleyev), with the participation of representatives of interested organizations, held an extended session of the Postoyannaya komissiya pri VNIIMe (Permanent Commission at the VNIIM[illegible]), which dealt with problems of the whiteness measurement. The following reports and informations were given:

Ye.N. Yustova on methods of whiteness measurement.

D.A. Shklover on an electronic color comparator and the application in the determination of whiteness.

V.S. Khazanov on the photometer FT-2 and its application in the measurement of whiteness.

D.I. Levin reported on the determination of an expedient measuring method of porcelain whiteness.

M.M. Gurevich spoke on the stage of the problem of whiteness measurement.

Card 1/2

Conference on Problems of Measuring the Whiteness of Products SOV/72-58-12-23/23

As a result of the conference it was stated that it is necessary to use either the colorimetric or the spectrophotometric method, according to the purpose for which the whiteness is measured. It was regarded as necessary to organize the series production of the photometer FT-2, the colorimeter KNO, the spherical photometer FM-58, and the photo-electric comparator GOI. The work done by the All-Union Scientific Research Institute of Metrology, the Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy institut (All-Union Scientific Photological Research Institute), the Gosudarstvennyy nauchno-issledovatel'skiy keramicheskiy institut (State Scientific Ceramic Research Institute), the Nauchno-issledovatel'skiy institut khlopchatobumazhnoy promyshlennosti (Scientific Research Institute of Cotton Industry) was appreciated, and its continuation was recommended. The desire was expressed to create in the VNIIM a center which should be equipped with the most up-to-date apparatus for measuring the whiteness in order to help industrial organizations.

Card 2/2

USCOMM-DC-60,515

GUREVICH. M.M.

Fundamental concepts of colorimetry. Probl.fiziol.opt. 12:181-187 '58 (MIRA 11:6)

(COLORIMETRY)

83228

S/051/60/009/002/004/006
E201/E691

5.5310

AUTHORS: Gurevich, M.M. and Kolyadin, K.I.

TITLE: A "Spectrovisor"

PERIODICAL: Optika i spektroskopiya, 1960, Vol. 9, No. 2, pp. 253-256

TEXT: The authors describe a fast spectrophotometer (shown schematically in Fig. 1) which traces simultaneously the transmission coefficient spectra of a test and a standard sample on the screen of a cathode-ray tube. The spectrophotometer is suitable for the visible region and its speed can be judged from the fact that each transmission curve is traced in 0.01 sec. Twelve photographic records can be made in one second and this makes it possible to study fast chemical reactions, such as the reaction between solutions of furfurol and aniline in acetone (Fig. 2). There are 2 figures.

SUBMITTED: March 23, 1960

Card 1/1

MESHKOV, Vladimir Vasil'yevich; GUREVICH, M.M., prof., doktor tekhn. nauk, retsenzent; LUIZOV, A.V., doktor fiz.-matem.nauk, retsenzent; ASHKENAZI, G.I., inzh., red.; LARIONOV, G.Ye., tekhn.red.

[Principles of lighting engineering] Osnovy svetotekhniki. Moskva, Gos.energ.izd-vo. Pt.2. [Physiological optics and colorimetry] Fiziologicheskaia optika i kolorimetriia. 1961. 416 p. (MIRA 14:4)

(Colorimetry) (Optics)

S/053/62/078/003/003/005
B163/B104

AUTHOR: Gurevich, M. M.

TITLE: On the spectral distribution of radiated power

PERIODICAL: Uspekhi fizicheskikh nauk, v. 78, no. 3, 1962, 463-470

TEXT: The position of the maximum of the spectral distribution given by Planck's radiation law depends on what spectral scale is used. The most frequently used scales are the wavelength λ, the wave number $n = 1/\lambda$, and $\ln\lambda$. The author favors the use of the $\ln\lambda$ - scale for the following reasons: (a) in the logarithmic scale the spectral density of the radiation has the same dimension as the integral radiation density, (b) each octave of the electromagnetic spectrum is represented by an equal section of the abscissa, (c) the dependences on wave length and on temperature of the radiation efficiency of an absolutely black body, calculated for one octave, are described by the same function if logarithmic scales are used for both wavelength and temperature, (d) the constant of Wien's displacement law for the maximum of the spectral distribution $\lambda T = 3667.7\ \mu$ degree coincides with the constant of the law from which

Card 1/2

S/053/62/078/003/003/005
B163/B104

On the spectral distribution ...

the temperature can be calculated which gives maximum radiation efficiency of a black body within a given narrow spectral interval. There are 6 figures.

GUREVICH, M.M., prof., doktor tekhn.nauk

Letter to the editor. Svetotekhnika 9 no.1:28 Ja '63.
(MIRA 16:1)

(Electric lighting)

GUREVICH, M.M.

Comments on V. I. Barkov's article "Radiation transfer in a uniform sphere with a central point source." Opt. i spektr. 15 no.1:140-141 Jl '63. (MIRA 16:8)

(Light—Transmission)

L [illegible]-66 EWT(1) IJP(c) GW

ACC NR: AR6001118 SOURCE CODE: UR/0272/65/000/009/0118/0118

29

AUTHORS: Gurevich, M. M.; Kolyadin, K. I.

21

TITLE: High-speed two-cell spectrophotometer for the spectral region 0.23 - 1.0 micron

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 9.32.833

REF SOURCE: Tr. Komiz. po spektroskopii. AN SSSR, vyp. 1, 1964, 643-649

TOPIC TAGS: spectrophotometer, spectrophotometry, spectral distribution

ABSTRACT: A high-speed two-cell spectrophotometer with mechanical scanning of the spectrum is described. The curve of the spectral transmission coefficient of the investigated object, the 100% line, and the zero line can be produced on the screen of an oscillograph. The spectral range of the device of 0.23--1.0 μ is divided into three spectral segments. The spectral transit time is 0.05 sec. Recording is produced with a movie camera with a rate of 24 frames/sec. The kinetics of chemical and photochemical reactions can be investigated with the device. High-speed spectrophotometry of investigated objects can also be produced. Illustrated. Bibliography of 2 citations. [Translation of abstract]

SUB CODE: 20

Card 1/1 UDC: 389:535.853.673

BAR'YER, L.A., GUREVICH, M.N.

Isolated subcuataneous rupture of the pancreas. Khirurgiia 34 no.7:124-125 Jl '58 (MIRA 11:9)

1. Iz khirurgicheskogo otdeleniya Shcheglovskoy bol'nitsy (glavnyy vrach Ye.P. Konoplya).
(PANCREAS, wounds and injuries
case reports (Rus))

GUREVICH, M.N. (Stalino (obl.), 10-ya liniya, d-47)

Case of left-sided appendicitis. Nov. khir. arkh. no.4:105 Jl-Ag '60. (MIRA 15:2)

1. Khirurgicheskoye otdeleniye Shcheglovskoy bol'nitsy Makeyevskogo gorzdravotdela.

(APPENDICITIS)

GUREVICH, M.N. (Stalino-Donbass, 13-ya liniya, d.60)

Case of spontaneous rupture of the urinary bladder. Nov. khir. arkh. no.9:79 S '61. (MIRA 14:10)

1. Kafedra khirurgii II (zav. - doktor med.nauk L.G.Smolyak) Stalinskogo meditsinskogo instituta na baze 1-y gorodskoy bol'nitsy.
(BLADDER--RUPTURE)

GUREVICH, M.N. (Donets, 13-ya liniya, d.60)

Lymphogranulomatosis of the ileac section of the small intestine. Nov. khir. arkh. no.12:79-80 D '61. (MIRA 14:12)

1. Kafedra fakul'tetskoy khirurgii II (zav. - prof. L.G.Smolyak) Donetskogo meditsinskogo instituta na baze Gorodskoy bol'nitsy No.1.
(HODGIN'S DISEASE) (ILEUM--DISEASES)

GUREVICH, M.N.

Large epiphrenal diverticulum of the esophagus. Khirurgiia no.12: 105-106 '61. (MIRA 15:11)

1. Iz kliniki fakul'tetskoy khirurgii No.2 (zav. - prof. L.G. Smolyak) Donetskogo meditsinskogo instituta na baze Gorodskoy bol'nitsy No.1 (glavnyy vrach M.M. Khanovich).
(ESOPHAGUS—DIVERTICULA)

GUREVICH, M. N.

Case report on the pathogenesis of ureteral-vaginal fistula.
Urologiia no.3:60-61 '61. (MIRA 14:12)

1. Iz II fakul'tetskoy khirurgicheskoy kliniki (zav. - doktor meditsinskikh nauk L. G. Smolyak) Stalinskogo meditsinskogo instituta i gorodskoy klinicheskoy bol'nitsy No. 1.

(ABORTION—COMPLICATIONS AND SEQUELAE)
(FISTULA, VESICO-VAGINAL)

OL'SHANETSKIY, A. A., dotsent; GUREVICH, M. N.

Clinical aspects of small diverticula of the esophagus. Vest. khir. no.4:9-11 '62. (MIRA 15:4)

1. Iz fakul'tetskoy khirurgicheskoy kliniki No. 2 (zav. - prof. L. G. Smolyak) Donetskogo meditsinskogo instituta na baze 1-y gorodskoy klinicheskoy bol'nitsy (gl. vrach - M. M. Khanovich)

(ESOPHAGUS--DIVERTICULA)

[illegible], P.I.; GUREVICH, M.S.

Eightieth anniversary of G.S. [illegible]'s birth. [illegible]
245-252 '63.

GUREVICH, M.S.

Paragenesis of underground waters and natural gases. Trudy Lab. Gidrogeol. Problem im. F.P. Savarenskogo, Akad. Nauk S.S.S.R. 3, 35-47 '48. (MLRA 3:2)
(CA 47 no.19:9872 '53)

GUREVICH, M.S.

Methods for hydrogeological testing of petroleum exploratory and base boreholes. Mat.VSEGEI no.18:143-154 '56. (MLRA 10:4)
(Prospecting) (Petroleum geology) (Water, Underground)

GUREVICH, M.S.

Principles of over-all study of underground waters relative to petroleum prospecting. Mat.VSEGEI no.18:184-197 '56.
(MLRA 10:4)

(Water, Underground) (Petroleum geology)

ARKHANGEL'SKIY, B.N.; BELYAKOVA, Ye.Ye.; GUREVICH, M.S.; ZAYTSEV, I.K., red.; ZINOV'YEVA, T.V.; MITGARTS, B.B.; MOROZOV, V.M.; PETROVA, N.A.; POPOV, M.P.; TOLSTIKHIN, N.I.; TOLSTIKHIN, O.N.; POTAPOV, V.S., red.; GUROVA, O.A., tekhn. red.

[Explanatory notes to a hydrochemical map of the U.S.S.R. on a scale of 1:5,000,000] Ob"iasnitel'naia zapiska k gidrokhimicheskoi karte SSSR v masshtabe 1: 5,000,000. Red. I.K. Zaitsev. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1958. 138 p. (MIRA 11:7)

1. Leningrad. Vsesoiuznyy geologicheskiy institut.
(Water, Underground--Maps)

GUREVICH, M. S.

"The importance of the geochemical zones of ground water for mineral oil prospecting."

report presented at a Conference in the Dept. of Geolcgical and Geographical Sci., on Geochemical and Radiometrical Methods of Search and Prospecting for Deposits, 21-26 April 1958.
(Vest. Ak Nauk SSSR, 1958, No. 7, pp. 125-26)

GUREVICH, M.S.; ZAYTSEV, I.K.; TOLSTIKHIN, N.I.

Regional hydrochemical features of artesian basins in the U.S.S.R.
Trudy Lab.gidrogeol.probl. 16:194-210 '58. (MIRA 12:2)

1. Vsesoyuznyy geologicheskiy nauchno-issledovatel'skiy institut.
(Water, Underground)

GUREVICH, M.S.

Some factors in the biogenic metamorphism of underground waters.
Trudy Lab.gidrogeol.probl. 16:245-255 '58. (MIRA 12:2)

1. Vsesoyuznyy geologicheskiy nauchno-issledovatel'skiy institut.
(Water, Underground--Bacteriology)

S/081/61/000/020/027/089
B105/B147

AUTHOR: Gurevich, M. S.

TITLE: Rare and trace elements in artesian waters

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 95, abstract 20G69 (Byul. Vses. n.-i. geol. in-ta, no. 2, 1960, 90-103)

TEXT: It was suggested that the clarkes of concentration (CC) of chemical elements in waters, i.e., the ratio of the mean content of a given element in the ground water to its mean content in the lithosphere, should be established. It is recommended that the distribution of elements in the waters of a certain region be graphically reproduced in the form of modified Fersman tables. The feasibility of this method is illustrated by means of several regions as examples. The CC relative to some ground waters of the West-Siberian lowland are presented in a table. [Abstracter's note: Complete translation.]

Card 1/1

GUREVICH, M.S.

Hydrochemical and hydrogeological oil and gas indices. Trudy VSEGEI 46:393-423 '61. (MIRA 14:11)
(Petroleum geology) (Gas, Natural)

GUREVICH, M.S.; TOLSTIKHIN, N.I.

Chemical classification chart of underground waters. Izv. vys. ucheb. zav.; geol. i razv. 4 no.1:83-93 Ja '61. (MIRA 14:7)

1. Leningradskiy gornyy institut imeni G.V. Plekhanova.
(Water, Underground--Analysis)

GUREVICH, M.S.

Role of micro-organisms of the formation of the chemical composition of underground waters. Trudy Inst.mikrobiol. no.9:86-100 '61. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy institut, Leningrad.
(Water, Underground—Microbiology)

ALESKEROVA, Z.T.; GUREVICH, M.S.; OSYKO, T.I.; Prinimala uchastiye VAGANOVA, Ye.G.; YASHCHURZHINSKAYA, N.D., tekhn.red.

[Geology and evaluation of oil and gas potentials in the southern part of Omsk Province] Geologicheskoe stroenie i otsenka perspektiv neftegazonosnosti iuzhnoi poloviny Omskoi oblasti. Leningrad, 1960. 206 p. (Leningrad. Vsesoiuznyi geologicheskii institut. Materialy, no.30) (MIRA 14:4)

(Omsk Province—Petroleum geology)
(Omsk Province—Gas, Natural—Geology)

GUREVICH, M.S., otv. red.

[Role of micro-organisms in the formation of bog ferro-manganese ores] Rol' mikroorganizmov v obrazovanii zhelezomargantsevykh ozernykh rud. Moskva, Nauka, 1964. 130 p. (MIRA 17:9)

1. Akademiya nauk SSSR. Laboratoriya gidrogeologicheskikh problem.

GUREVICH, M. S.

I-1

Category : USSR/Radiophysics - General Problems

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 1785

Author : Gurevich, M.S.
Title : Signals of Finite Duration, Containing the Maximum Fraction of Energy in a Specified Frequency Band.

Orig Pub : Radiotekhn. i elektronika, 1956, 1, No 3, 313-319

Abstract : A theoretical analysis of the problem of the waveform of a pulse of finite duration, for which the maximum energy is contained within a specified frequency band. The problem reduces to solving a homogeneous Fredholm integral equation with a symmetrical positive definite kernel. The bandwidth occupied by the "ideal" pulse (in which 99% of the total energy of the pulse is contained) is determined.

Card : 1/1

109-2-1-6/17

AUTHOR: Gurevich, M. S.

TITLE: Frequency Band Occupied in Pulse Transmission
(Polosa chastot, zanimayemaya pri peredache impul'sov)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol 2, Nr 1, pp 38-43 (USSR)

ABSTRACT: The distribution of pulse energy in a frequency band is considered. Numerical values of the frequency bandwidth occupied with pulse transmissions are determined. The distribution of the pulse energy in the frequency band is examined mathematically for various shapes of pulses. An "ideal" signal is a signal whose maximum energy is concentrated within a pre-set frequency band. The distribution of energy within the pulses of various shapes is compared with the distribution of energy within the "ideal" signal. On the basis of the Fourier integral for pulse spectrum, an expression of the function of energy distribution within the frequency band (formula 4) is developed. Square, trapezoidal, triangular, cosinusoidal and cosine-square pulse shapes are considered. Bandwidths Δf expressed in terms of the parameter k (formula 8) are determined for all of the above pulse shapes. Bandwidths in bands are summarized

Card 1/2

109-2-1-6/17

Frequency Band Occupied in Pulse Transmission

in a table at the end of the article. This table shows that the cosinusoidal pulse has the narrowest bandwidth (2-1/2 bands).

There are four figures, one table, and one Soviet reference in the article.

SUBMITTED: May 4, 1956

AVAILABLE: Library of Congress

1. Pulses--Transmission 2. Frequency--Mathematical analysis

Card 2/2

GUREVICH, M.S.

Frequency band occupied by the transmission of radiotelegraph signals during amplitude and frequency manipulation. Elektrosviaz' 11 no.3:35-42 Mr '57. (MLRA 10:5)
(Radiotelegraph)

GUREVICH, M.S

GUREVICH, M.S., kand. tekhn. nauk.

New method of measuring frequency band widths emitted by radio telegraph transmitters. Vest. sviazi 17 no.12:27 D '57. (MIRA 10:12)
(Radiotelegraph)

GUREVICH, M. S.

M. S. Gurevich, "Frequency band of radio communication channels." Scientific Session Devoted to "Radio Day", May 1958, Trudrezervizdat, Moscow, 9 Sep 58.

The increase in the filling of the frequency spectrum, the reasons for its inadequacy in radio frequencies, the technical obstables to the complete use of the spectrum are analyzed.

Basic definitions refering to the emission pass band of radio stations are given. The shape of a signal or given duration which would permit the greatest part of the energy to be concentrated in a given frequency band is presented; the impulse of optimum shape is compared with impulses of other shapes.

The frequency band occupied by the transmission of radio telegraph signals with amplitude and frequency manipulation is determined.

Methods and apparatus to measure the frequency band width emitted by radio telegraph transmitters are presented.

In conclusion, recommendations are made which are directed toward the improvement of the use of the radio frequency spectrum.

GUREVICH, M. S. [illegible]

6(4)

AUTHOR: Gurevich, M. S., Regular Member of the Society SOV/108-13-11-4/15

TITLE: The Frequency Band Occupied by a Chance Series of Signals (Polosa chastot, zanimayemaya peredachey sluchaynoy posledovatel'nosti signalov)

PERIODICALS: Radiotekhnika, 1958, Vol 13, Nr 11, pp 18-26 (USSR)

ABSTRACT: The difficulties arising in connection with the determination of the frequency range occupied by a chance transmission of radiotelegraphic signals are investigated. Ways and means of overcoming these difficulties are pointed out. They concern the establishment of ratios between the spectra of the chance- and those of the periodical signals, as well as the determination of the energy spectra of chance signals by means of the correlation function. Ratios which facilitate comparison between the spectra of chance, and periodical signals are determined. It is shown that the spectrum of telegraphic transmission may be considered to be a product of two spectral functions of which one depends only on the form of the signal, but the other on the message to be

Card 1/3

The Frequency Band Occupied by a Chance Series of Signals SOV/108-13-11-4/15

transmitted. For the case of a finite sequence of equal signals which follow one another at random intervals, the spectral function that depends on the message transmitted has an amplitude that is statistically distributed according to Rayleigh's (Reley) law. The investigation of the spectrum "in the mean" leads to the theorem by N. N. Andreyev. This proves that the spectrum of not ordered signals coincides with that of a signal. For the transmission by the Morse (Morze) code by hand the frequency range is measured by means of the correlation function. It is shown that in this case the frequency range occupied by the transmission of chance signals is somewhat more narrow than in the case of a transmission of periodical signals. On the basis of the investigations carried out here, practical directives are given for the purpose of the experimental determination of the frequency ranges occupied by the transmission of chance signals. It is shown that in the experimental determination of the frequency range the statistical characteristic features of the transmitted messages must be taken into account, i.e. their presence

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The Frequency Band Occupied by a Chance Series of Signals SOV/108-13-11-4/15

within sufficiently long series of equal signals transmitted in equal intervals. When determining the frequency range it is necessary to take the highest measuring values of the indicator device of the spectral analyser into account. There are 3 figures and 10 references, 9 of which are Soviet.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific-technical Society of Radio Engineering and Electro-communications im. A.S. Popov)

SUBMITTED: July 17, 1956

Card 3/3

AUTHOR: Gurevich, M.S. SOV/115-58-1-31/50

TITLE: Measuring the Width of Frequency Bands Radiated by Radiotelegraph Transmitters (Izmereniye shiriny polosy chastot, izluchayemoy radiotelegrafnymi peredatchikami)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 1, pp 62 - 67 (USSR)

ABSTRACT: What is called the frequency band of transmitter radiation, is the band of frequencies containing 99% of the radiated power and including any discrete harmonic, the power of which is not less than 25% of the total radiated power /Ref 1 7. This article gives general information on three existing basic methods of measuring the width of a band occupied by radiotelegraphic radiations in the frequency range below 30 megacycles. The author's information sources are the records of sessions of the International Advisory Committee for Radiocommunications in 1953 /Ref 2 7 and 1955. There are 5 diagrams, 6 graphs and 2 references, 1 of which is Soviet and 1 French.

1. Frequency--Measurement 2. Communication systems--Performance

Card 1/1

SOV/111-58-4-13/34

AUTHOR: Gurevich, M.S., Candidate of Technical Sciences

TITLE: The Radio Frequency Spectrum and Its Utilization (Spektr radiochastot i yego ispol'zovaniye)

PERIODICAL: Vestnik svyazi, 1958, Nr 4, p 11 - 12 (USSR)

ABSTRACT: The rapid development of the different branches of radio engineering has caused an overcrowding of the available frequencies below 30 megacycles, because the utilization of frequencies above 30 megacycles entails a number of technical difficulties, for example, limited range, noise level, atmospheric interference (heavy rain will disrupt communication at frequencies above 30,000 megacycles), limited power and higher cost of equipment. In addition, recent radio communication methods, FM, TV and radar requre larger channels than the AM broadcasting stations. Considering the difficulties encountered in shifting some of the radio communication methods to higher frequencies, the author points out that the existing difficulties in the availability of wave ranges may be overcome by a better utilization of the

Card 1/2

SOV/111-58-4-13/34

The Radio Frequency Spectrum and Its Utilization

frequency channels below 30 megacycles. He recommends the application of directional antennas, receivers with a higher sensitivity, stabilization of the transmitter frequency, improved modulation systems, whereby the intervals between the transmitter frequencies may be reduced.

1. Radio communication systems--USSR 2. Radio frequencies --Availability

Card 2/2

Gurevich, M.S.

MEASUREMENT

"New Method for Measuring the Bandwidth Radiated by a Radio-Telegraph Transmitter", by M.S. Gurevich, Candidate of Technical Sciences, Vestnik Svyazi, No 12, December 1958, p 27.

This apparatus was described by the Polish delegation at the 8th Planary Session of the International Consultative Committee on Radio, held in Warsaw in August-September 1956.

The method is based on comparing the total power of the signal (100%) with a portion of the power (1%) located outside the measured actual bandwidth. The block diagram of the apparatus is shown and its basic operation is described.

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6(4) SOV/108-13-11-4/15

AUTHOR: Gurevich, M. S., Regular Member of the Society

TITLE: The Frequency Band Occupied by a Chance Series of Signals (Polosa chastot, zanimayemaya peredachey sluchaynoy posledovatel'nosti signalov)

PERIODICALS: Radiotekhnika, 1958, Vol 13, Nr 11, pp 18-26 (USSR)

ABSTRACT: The difficulties arising in connection with the determination of the frequency range occupied by a chance transmission of radiotelegraphic signals are investigated. Ways and means of overcoming these difficulties are pointed out. They concern the establishment of ratios between the spectra of the chance- and those of the periodical signals, as well as the determination of the energy spectra of chance signals by means of the correlation function. Ratios which facilitate comparison between the spectra of chance,and periodical signals are determined. It is shown that the spectrum of telegraphic transmission may be considered to be a product of two spectral functions of which one depends only on the form of the signal, but the other on the message to be

Card 1/3

transmitted. For the case of a finite sequence of equal signals which follow one another at random intervals, the spectral function that depends on the message transmitted has an amplitude that is statistically distributed according to Rayleigh's (Reley) law. The investigation of the spectrum "in the mean" leads to the theorem by N. N. Andreyev. This proves that the spectrum of not ordered signals coincides with that of a signal. For the transmission by the Morse (Morze) code by hand the frequency range is measured by means of the correlation function. It is shown that in this case the frequency range occupied by the transmission of chance signals is somewhat more narrow than in the case of a transmission of periodical signals. On the basis of the investigations carried out here, practical directives are given for the purpose of the experimental determination of the frequency ranges occupied by the transmission of chance signals. It is shown that in the experimental determination of the frequency range the statistical characteristic features of the transmitted messages must be taken into account, i.e. their presence within sufficiently long series of equal signals transmitted in equal intervals. When determining the frequency range it is necessary to take the highest measuring values of the indicator device of the spectral analyzer into account. There are 3 figures and 10 references, 9 of which are Soviet.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific-technical Society of Radio Engineering and Electro-communications im. A.S. Popov)

SUBMITTED: July 17, 1956

Card 3/3

PHASE I BOOK EXPLOITATION SOV/5245

Ministerstvo svyazi SSSR. Tekhnicheskoye upravleniye

Novyye razrabotki v oblasti radiosvyazi i radioveshchaniya; informatsionnyy sbornik (New Developments in the Field of Radio Communication and Radio Broadcasting; Informational Collection) Moscow, Svyaz'izdat, 1959. 80 p. 11,500 copies printed. (Series: Tekhnika svyazi)

Resp. Ed.: A. S. Vladimirov; Ed.: V. I. Bashur; Tech. Ed.: G. I. Shefer.

PURPOSE: This collection of articles is intended for technical personnel concerned with the development and operation of radio communication and radio broadcasting.

COVERAGE: The book contains, according to the Foreword, information on new developments realized at the Gosudarstvennyy nauchno-issledovatel'skiy institut Ministerstva svyazi SSSR (State Scientific Research Institute of the Ministry of Communication USSR). Radio communication and radio broadcasting apparatus are described. Several articles are concerned with the development of new checking and measuring instruments. No personalities are mentioned. There are no references.

Prokhorov, A. M. Instrument for Measuring Group Delay Time in Superhigh-Frequency Range 49

Bobrov, A. I. Generator of OS-R-60-Type Signals With Calibrated Output Level 59

Rabinovich, G. I. Heterodyne Wave Meter 65

Fomin, N. V. Installation for Calibrating Superhigh-Frequency Attenuators 69

Gurevich, M. S., V. Ye. Belovitskiy, and N. V. Deryugin. Electronic Copying Device for Reproducing Electric Pulses of Arbitrary Shape From a Drawing 75

(6)

6.9000

66708

AUTHOR: Gurevich, M.S. SOV/109-4-8-29/35

TITLE: The Signals of Finite Duration Which Secure the Required Attenuation Rate of the Out-of-band Radiation

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1395 - 1396 (USSR)

ABSTRACT: One of the criteria of estimating the suitability of a pulse signal as a means of communication is the amount of the undesirable radiation produced by the signal outside the required bandwidth. From this point of view, it is of interest to investigate a signal U(t) having a duration $-\tau/2$ to $+\tau/2$ such that the signal can be represented as:

$$\left.\begin{aligned} U(t) &= A \cos^n \frac{\pi}{\tau} t \quad &&\text{at} \quad -\tau/2 \leqslant t \leqslant +\tau/2 \\ U(t) &= 0 &&\text{at} \quad |t| > \tau/2 \end{aligned}\right\} \qquad (2).$$

The function satisfying Eqs (2) should give the attenuation rate of the frequency spectrum not lower than

Card1/2

4

66708

SOV/109-4-8-29/35

The Signals of Finite Duration Which Secure the Required Attenuation Rate of the Out-of-band Radiation

C/ω^{n+1} . The spectra for the signal of Eqs (2) are expressed by Eq (3) for $n = 1$, Eq (4) for $n = 2$, Eq (5) for $n = 3$, while for $n > 2$, the spectra are given by Eq (6). If it is necessary to have a signal consisting of a rectangular portion contained between $-\tau_1/2$ and $\tau_1/2$ and having the edges $(-\tau/2, -\tau_1/2)$ and $(\tau_1/2, \tau/2)$, this can be described by Eqs (7). It can be shown that for this signal, the rate of the decrease of the spectrum with frequency is not less than C/ω^4 . There are 3 Soviet references.

4X

SUBMITTED: March 23, 1959

Card 2/2

05373
SOV/106-59-8-5/12

AUTHOR: Gurevich, M.S.

TITLE: The Frequency-band, Occupied When Pulses with Cosine-squared "Rounding" Are Transmitted

PERIODICAL: Elektrosvyaz', 1959, Nr 8, pp 38 - 42 (USSR)

ABSTRACT: The article finds analytically the frequency-band and the distribution of the pulse energy in the frequency band for symmetrical pulses, the centre part of which is rectangular (duration time τ) but the edges of which (duration time $\tau/2$ each) are rounded off in accordance with the law $\cos^2 t$. The shape of such pulses is shown in Figure 1. The frequency band is defined as the band which contains 99% of the total pulse energy. Such pulses are described by the expression:

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SOV/106-59-8-5/12

The Frequency-band, Occupied when Pulses with Cosine-squared "Rounding" are Transmitted

$$\left.\begin{array}{lll} U(t) = A\cos^2\dfrac{\pi}{\tau-\tau_1}\left(t+\dfrac{\tau_1}{2}\right) & \text{when} & -\dfrac{\tau}{2} < t < -\dfrac{\tau_1}{2} \\ U(t) = A & \text{"} & -\dfrac{\tau_1}{2} < t < +\dfrac{\tau_1}{2} \\ U(t) = A\cos^2\dfrac{\pi}{\tau-\tau_1}\,t-\dfrac{\tau_1}{2} & \text{"} & +\dfrac{\tau_1}{2} < t < +\dfrac{\tau}{2} \end{array}\right\} \quad (1)$$

and the spectral density of the pulse energy is given in Eq (2), where $\xi = \tau_1/\tau$ and $k = \omega\tau/2$. The formula for the fraction of the energy η in a given frequency band is given by Eq (3). (Calculation of the untabulated integrals A(k) , B(k) and C(k) , which occur in Eq (3), is given in the appendix.)

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05379

SOV/106-59-8-5/12

The Frequency-band, Occupied when Pulses with Cosine-squared "Rounding" are Transmitted

Figures 1, 2, 3 show the dependence of η on k for values of $\xi = 0.3$, 0.5 and 0.8 with $A(k)$, $B(k)$, $C(k)$ normalised relative to $4/\pi (3 + 5\xi)$. After calculation of the bandwidths for the same values of ξ, the bandwidths are compared with the bandwidths of trapezoidal pulses (Table 1), from which it is seen that the trapezoidal pulses occupy somewhat smaller bands. Comparison of the equations with those of Ref 1 shows that for large values of k the envelope of the frequency spectrum of trapezoidal pulses reduces proportionally to $1/k^2$, but for pulses with cosine-squared rounding, proportionally to $1/k^3$. Therefore, pulses with cosine-squared rounding have the advantage of more rapid reduction in the radiation outside the band. There are 3 figures, 1 table and 2 Soviet references.

SUBMITTED: December 10, 1958

Card 3/3

GUREVICH~~, M.S.~~

Cosine-squared pulse. Radiotekhnika 15 no. 5:60-63 My '60.
(MIRA 14:4)

1. Deystvitel'nyy chlen Nauchno -tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi.
(Pulse techniques (Electronics))

81378

S/108/60/015/05/06/008
B007/B014

6,9000

AUTHOR: Gurevich, M. S., Member of the Society

TITLE: Cosine Cubic Pulses

PERIODICAL: Radiotekhnika, 1960, Vol. 15, No. 5, pp. 60-63

TEXT: Pulses formed according to the first and second cosine power are used in radio engineering and electrocommunication. Certain advantages are occasionally achieved if the pulses are formed according to higher powers, especially the third power. The present paper deals with such pulses which are designated as cosine cubic pulses. The energy distribution of the cosine, the cosine square, and the cosine cubic pulses is diagrammatically shown in Fig. 2. In accordance with the definitions of the CCIR (Comité Consultatif International des Radiocommunications), the bandwidth is the frequency band that comprises 99 per cent of the total emission. Therefore, the frequency bandwidth of pulses formed according to the n-th cosine power is determined by a value k at which $\eta_n = 0.99$. η is the energy distribution in the frequency band. A table shows a comparison between cosine, cosine square, and cosine cubic pulses. From this

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81378

Cosine Cubic Pulses

S/108/60/015/05/06/008
B007/B014

it follows that cosine cubic pulses have the advantage that with a rise in frequency the emissions outside the band decrease rapidly. Moreover, these pulses secure a short settling time. Disadvantages: wider frequency band and lower energy. Formula (14) may be used to determine the type of signal: $k_y = k\tau_y$. k - bandwidth, τ_y - pulse duration. The table shows that k_y varies but little with a change of n. There are 2 figures.

SUBMITTED: April 24, 1959

Card 2/2

35375
S/108/62/017/003/001/009
D299/D301

6,4800 (also 1524)

AUTHOR: Gurevich, M.S., Member of the Society (see Association)

TITLE: On reducing adjacent-channel interference

PERIODICAL: Radiotekhnika, v. 17, no. 3, 1962, 3 - 9

TEXT: Possible methods of studying channel-interference are considered. It is shown that the properties of signals can be more readily analyzed, if the latter are represented as sequences of time-shifted functions. By considering the energy spectrum of a sequence of time-shifted signals, it is shown that the problem of reducing channel interference amounts to finding an elementary signal which would create noises of minimal energy during the transmission. Formulas are derived for the energy spectrum; the latter is expressed in the form of a product of 2 spectral functions, one of which is the energy spectrum of the elementary signal, and the other is related to a signal, expressed as the sum of δ-functions. Formulas are derived for the spectra of uncorrelated signals; one obtains:

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$$R_{e0}(\omega) = \lim_{n\to\infty} \frac{4}{nT}\sum_{i=-n}^{n} A_i^2 + \lim_{n\to\infty} \frac{4}{nT}\sum_{i=-n}^{n} A_i A_j \cos \omega(i-j)T. \quad (20)$$

Formula (20) represents the second of the above-mentioned spectral functions. Further, the spectra of correlated signals are discussed. Conclusions: 1) The influence of noises on a receiver depends not only on the energy of the disturbance, but also on the statistical character of the signal and on the type of receiver. 2) If the receiver is tuned at a frequency, sufficiently far from the center of the disturbance spectrum, and its bandpass can be considered as rectangular, then the influence of the disturbing signal can be readily determined in the case of uncorrelated signal-sequences. If, in addition, the disturbance has independent amplitudes, then the noise resembles a white noise. It increases the background noise of the channel and causes a great loss in the transmitting power of the channel. 3) If the signals are uncorrelated, their spectrum can be directly compared with that of elementary signals, transmitted by the same system under the condition that an

On reducing adjacent-channel ...

S/108/62/017/003/001/009
D299/D301

integrator be connected to the receiver output, 4) In case of a correlated sequence of signals, the energy spectrum flucuates with -respect to that of the elementary signal. These fluctuations depend on the bandpass of the receiver and on the difference between the tuning frequency and the mean frequency of the signal. For measuring the disturbances (in case of correlated signals), it is most expedient to replace such a signal either by white noises, modulating the transmitter (in case of radiotelephony), or by a periodic sequence of signals (in case of radiotelegraphy). There are 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communcations imeni A.S. Popov) [Abstractor's note: Name of Association taken from first page of journal]

SUBMITTED: March 14, 1961

Card 3/3

S/106/62/000/008/004/009
A055/A101

9,3275

AUTHOR: Gurevich, M.S.

TITLE: Forming of pulses in transmitter keying for a better utilization of the spectrum

PERIODICAL: Elektrosvyaz', no. 8, 1962, 24 - 31

TEXT: This article is a general practical survey of the problem regarding the reduction of interferences between adjacent channels by choosing an appropriate (optimum) shape of the signal pulses. The article is intended, not for specialists, but for engineers who are insufficiently acquainted with this problem. The first chapter of the article contains some practical considerations on the choice of the shape of pulses in amplitude-keying and frequency-keying. The second chapter deals with linear filters in keying circuits. (Some spectral characteristics obtained after filtration are reproduced in this chapter, which show that filtration permits improving considerably the utilization of the radio-frequency spectrum.) A nonlinear system for forming signals (in which the rectangular signal is first converted into a trapezoidal one, the angles of the

V/B

Card 1/2

Forming of pulses in transmitter keying for S/106/62/000/008/004/009
A055/A101

trapezium being then rounded off) is described in the third and last chapter of the article. The Soviet personalities mentioned in the article are: A.A. Magazanik. There are 9 figures.

√B

SUBMITTED: March 22, 1962

Card 2/2

GUREVICH, M.S.

Decrease in the mutual interference between radio communication channels transmitting random sequence signals. Radiotekhnika 17 no.3:3-9 Mr '62. (MIRA 15:2)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi imeni Popova.
(Radio—Interference)

GUREVICH, M.S.

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